



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4

ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW
ATLANTA, GEORGIA 30308-8909

July 30, 1998

MEMORANDUM

Subject: Recommendation for Issuance of the Hazardous and Solid Waste Amendments
Permit for the Textron Automotive Company, Inc.
Grenada, Mississippi Facility
EPA ID No. MSD 007 037 278

From: Lael H. Butler
Corrective Action Specialist
South Programs Section
RCRA Programs Branch

Through: Kent Williams, Chief
South Programs Section
RCRA Programs Branch

Narindar M. Kumar, Chief
RCRA Programs Branch
Waste Management Division

To: Richard D. Green, Director
Waste Management Division

Issue

In accordance with the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976, and the Hazardous and Solid Waste Amendments (HSWA) of 1984, a HSWA Permit is to be jointly issued with the Mississippi Department of Environmental Quality (MDEQ) Post-closure Permit to the Textron Automotive Company, Inc. Taken together, these constitute the full RCRA Permit.

The MDEQ and the EPA have worked together since the completion of the RCRA Facility Assessment in 1997 to develop the HSWA and Post-closure portions of the RCRA Permit. A Draft RCRA Permit was placed on public notice from May 15 - June 30, 1998. No comments were submitted during the public comment period; and, there were no requests for a public hearing.

Therefore, it is recommended that EPA's final decision be to issue this HSWA Permit jointly with the MDEQ Post-closure portion of the RCRA Permit. The permit is effective July 30, 1998.

G:TEXMEMO.WPD

BUTLER

WILLIAMS

KUMAR

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8/8/98

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8/16/98



HSWA PORTION OF THE RCRA PERMIT

OWNER/OPERATOR: Grenada Manufacturing, LLC
635 Highway 332
Grenada, MS 38901

EPA I.D. No. MSD 007 037 278

Pursuant to the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976, 42 USC Section 6901 et seq., and the Hazardous and Solid Waste Amendments (HSWA) of 1984, P.L. 98-616, and regulations promulgated thereunder by the U.S. Environmental Protection Agency (EPA) (codified and to be codified in Title 40 of the Code of Federal Regulations), a permit is issued to Grenada Manufacturing, LLC (hereafter called the Permittee), who owns and operates a hazardous waste facility located in Grenada, Mississippi at latitude 30°48'16" and longitude 89°47'30".

This Permit, in conjunction with the Hazardous Waste Management Permit issued by the State of Mississippi, constitutes the full RCRA Permit for this facility. The Permittee, pursuant to this permit, shall be required to investigate any releases of hazardous waste or hazardous constituents at the facility regardless of the time at which waste was placed in a unit and to take appropriate corrective action for any such releases. The permit also requires the Permittee to comply with all land disposal restrictions and air emission standards applicable to this facility.

The Permittee must comply with all terms and conditions of this permit. This permit consists of the conditions contained herein (including those in any attachments) and applicable regulations contained in 40 CFR Parts 260 through 264, 266, 268, 270, and 124 as specified in the permit and statutory requirements of RCRA, as amended by HSWA. Nothing in this permit shall preclude the Regional Administrator from reviewing and modifying the permit at any time during its term in accordance with 40 CFR §270.41.

This permit is based on the premise that information and reports submitted by the Permittee prior to issuance of this permit are accurate. Any inaccuracies found in this information or information submitted as required by this permit may be grounds for termination or modification of this permit in accordance with 40 CFR §270.41, §270.42, and §270.43 and potential enforcement action. The Permittee must inform EPA of any deviation from or changes in the information in the application which would affect the Permittee's ability to comply with the applicable regulations or permit conditions.

The authority to perform all actions necessary to issue, modify, enforce, or revoke this permit has been delegated by the Regional Administrator to the Waste Management Division Director.

This permit is effective July 31, 1998, and shall remain in effect for 10 years until July 30, 2008, unless revoked and reissued, or terminated under 40 CFR §270.41 and §270.43 or continued in accordance with 40 CFR §270.51(a). All obligations for performance of HSWA provisions required under this permit are in effect until deemed complete by the Regional Administrator.

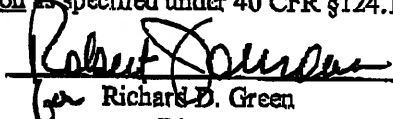
If any conditions of this permit are appealed in accordance with 40 CFR §124.19, the effective date of the conditions determined to be stayed in accordance with 40 CFR §124.16 shall be determined by final agency action as specified under 40 CFR §124.19.

July 31, 1998

Issued Date

OCT 27 1999

Modification Date (Company Name Change)


for Richard D. Green
Director
Waste Management Division



HSWA PORTION OF THE RCRA PERMIT

OWNER/OPERATOR: Textron Automotive Company
635 Highway 332
Grenada, Mississippi 38901

EPA I.D. No. MSD 007 037 278

Pursuant to the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act (RCRA) of 1976, 42 USC Section 6901 et seq., and the Hazardous and Solid Waste Amendments (HSWA) of 1984, P.L. 98-616, and regulations promulgated thereunder by the U.S. Environmental Protection Agency (EPA) (codified and to be codified in Title 40 of the Code of Federal Regulations), a permit is issued to the Textron Automotive Company (hereafter called the Permittee), who owns and operates a hazardous waste facility located in Grenada, Mississippi, at latitude 30°48'16" and longitude 89°47'30".

This Permit, in conjunction with the Hazardous Waste Management Permit issued by the State of Mississippi, constitutes the full RCRA Permit for this facility. The Permittee, pursuant to this permit, shall be required to investigate any releases of hazardous waste or hazardous constituents at the facility regardless of the time at which waste was placed in a unit and to take appropriate corrective action for any such releases. The permit also requires the Permittee to comply with all land disposal restrictions and air emission standards applicable to this facility and to certify annually that on-site generation of hazardous waste is minimized to the extent practicable.

The Permittee must comply with all terms and conditions of this permit. This permit consists of the conditions contained herein (including those in any attachments) and applicable regulations contained in 40 CFR Parts 260 through 264, 266, 268, 270, and 124 as specified in the permit and statutory requirements of RCRA, as amended by HSWA. Nothing in this permit shall preclude the Regional Administrator from reviewing and modifying the permit at any time during its term in accordance with 40 CFR §270.41.

This permit is based on the premise that information and reports submitted by the Permittee prior to issuance of this permit are accurate. Any inaccuracies found in this information or information submitted as required by this permit may be grounds for termination or modification of this permit in accordance with 40 CFR §270.41, §270.42, and §270.43 and potential enforcement action. The Permittee must inform EPA of any deviation from or changes in the information in the application which would affect the Permittee's ability to comply with the applicable regulations or permit conditions.

The authority to perform all actions necessary to issue, modify, enforce, or revoke this permit has been delegated by the Regional Administrator to the Waste Management Division Director.

This permit is effective July 31, 1998, and shall remain in effect for 10 years until July 30, 2008, unless revoked and reissued, or terminated under 40 CFR §270.41 and §270.43 or continued in accordance with 40 CFR §270.51(a). All obligations for performance of HSWA provisions required under this permit are in effect until deemed complete by the Regional Administrator.

If any conditions of this permit are appealed in accordance with 40 CFR §124.19, the effective date of the conditions determined to be stayed in accordance with 40 CFR §124.16 shall be determined by final agency action as specified under 40 CFR §124.19.

July 31, 1998
Issued Date

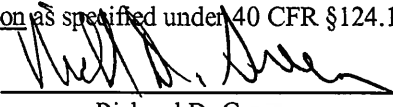

Richard D. Green
Director
Waste Management Division

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PART I - STANDARD CONDITIONS

I.A. EFFECT OF PERMIT

Compliance with this RCRA permit constitutes compliance, for purposes of enforcement, with Subtitle C of RCRA except for those requirements not included in the permit which become effective by statute, are promulgated under 40 CFR Part 268 restricting placement of hazardous waste in or on the land or are promulgated under 40 CFR Part 264 of this chapter regarding leak detection systems for new and replacement surface impoundment, waste pile, and landfill units, and lateral expansions of surface impoundment, waste pile, and landfill units, as specified in 40 CFR §270.4. Issuance of this permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, any invasion of other private rights, or any infringement of state or local law or regulations. Compliance with the terms of this permit does not constitute a defense to any order issued or any action brought under Section 3008(a), 3008(h), 3004(v), 3008(c), 3007, 3013 or Section 7003 of RCRA, Sections 104, 106(a), 106(e), or 107 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 9601 *et seq.*, commonly known as CERCLA), or any other law providing for protection of public health or the environment.

I.B. PERMIT ACTIONS

This permit may be modified, revoked and reissued, or terminated for cause as specified in 40 CFR §§270.41, 270.42, and 270.43 except for the Corrective Action schedule of compliance which shall be modified in accordance with Condition II.I. of this permit. The filing of a request for a permit modification, revocation and reissuance, or termination, or the notification of planned changes or anticipated noncompliance on the part of the Permittee does not stay the applicability or enforceability of any permit condition.

I.C. SEVERABILITY

The provisions of this permit are severable, as specified in 40 CFR §124.16 and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

I.D. DUTIES AND REQUIREMENTS

I.D.1. Duty to Comply

The Permittee shall comply with all conditions of this permit, except to the extent and for the duration such noncompliance is authorized by an emergency permit. Any permit noncompliance, other than noncompliance authorized by an emergency permit, constitutes a violation of RCRA and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or denial of a permit renewal application.

I.D.2. Duty to Reapply

If the Permittee will continue an activity allowed or required by this permit after the expiration date of this permit, the Permittee shall submit a complete application for a new permit at least one hundred eighty (180) calendar days before this permit expires, unless permission for a later date has been granted by the Regional Administrator.

I.D.3. Obligation for Corrective Action

The Permittee is required to continue this permit for any period necessary to comply with the corrective action requirements of this permit.

I.D.4. Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

I.D.5. Duty to Mitigate

In the event of noncompliance with the permit, the Permittee shall take all reasonable steps to minimize releases of hazardous waste or hazardous constituents to the environment, and shall carry out such measures as are reasonable to prevent significant adverse effects on human health or the environment.

I.D.6. Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

I.D.7. Duty to Provide Information

The Permittee shall furnish to the Regional Administrator, within a reasonable time, any relevant information which the Regional Administrator may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The Permittee shall also furnish to the Regional Administrator, upon request, copies of records required to be kept by this permit.

I.D.8. Inspection and Entry

The Permittee shall allow the Regional Administrator, or an authorized representative, upon the presentation of credentials and other documents as may be required by law to:

- a. Enter at reasonable times upon the Permittee's premises where a regulated activity is located or conducted, or where records must be kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated, or required under this permit; and
- d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by RCRA, any substances or parameters at any location.

I.D.9. Monitoring and Records

I.D.9.a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. The method used to obtain a representative waste sample to be analyzed must be the appropriate method from Appendix I of 40 CFR Part 261, the EPA Region 4 Environmental Compliance Branch's Standard Operating Procedure and Quality Assurance Manual (SOP) (most recent version), or an equivalent method approved by the Regional Administrator. Procedures for sampling contaminated media must be those identified in the EPA Region 4 SOP or an equivalent method approved by the Regional Administrator. Laboratory methods must be those specified in the most recent edition of Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846, or an equivalent method approved by the Regional Administrator.

I.D.9.b. The Permittee shall retain at the facility, as provided for under 40 CFR Part 264, or other appropriate location as approved by the Regional Administrator, records of all monitoring information required under the terms of this permit, including all calibration and maintenance records, records of all data used to prepare documents required by this permit, copies of all reports and records required by this permit, the certification required by 40 CFR §264.73(b)(9), and records of all data used to complete the application for this permit for a period of at least three years from the date of the sample, measurement, report, certification or application, or until corrective action is completed, whichever date is later. As a generator of hazardous waste, the Permittee shall retain a copy of all notices, certifications, demonstrations, waste analysis data, and other documentation produced pursuant to 40 CFR Part 268 for at least five years from the date that the waste which is the subject of such documentation was last sent to on-site or off-site treatment, storage, or disposal, or until corrective action is completed, whichever date is later. These periods may be extended by request of the Regional Administrator at any time and are automatically extended during the course of any unresolved enforcement action regarding this facility.

I.D.9.c. Records of monitoring information shall specify:

- i. The dates, exact place, and times of sampling, or measurements;
- ii. The individuals who performed the sampling or measurements;
- iii. The dates analyses were performed;
- iv. The name of the laboratory which performed the analyses;
- v. The analytical techniques or methods used; and
- vi. The results of such analyses.

I.D.10. Reporting Planned Changes

The Permittee shall give written notice to the Regional Administrator as soon as possible of any planned physical alterations or additions, including Permittee initiated Interim Measures under Condition II.F.1.b., which impact known or suspected contamination at or from SWMUs or AOCs referenced in Conditions II.A.1., II.A.3., II.A.4., and II.C. The notice shall include at a minimum, a summary of the planned change, the reason for the planned change, a discussion of the impact(s) the planned change will have on the ability to investigate contamination at or from the SWMU or AOC, and a discussion of the impact(s) the planned change will have on the known or suspected contamination.

I.D.11. Anticipated Noncompliance

The Permittee shall give advance notice to the Regional Administrator of any planned changes in the permitted facility or activity which may result in noncompliance with the requirements of this permit.

I.D.12. Transfer of Permit

This permit may be transferred to a new owner or operator only after notice to the Regional Administrator and only if it is modified or revoked and reissued pursuant to 40 CFR §270.40(b) or §270.41(b)(2) to identify the new permittee and incorporate such other requirements as may be necessary under the appropriate Act. Before transferring ownership or operation of the facility during its operating life, or of a disposal facility during the post-closure care period, the Permittee shall notify the new owner or operator in writing of the requirements of 40 CFR Parts 264 and 270, HSWA and this permit.

I.D.13. Compliance Schedules

Written notification of compliance or noncompliance with any item identified in the compliance schedule of this permit shall be submitted according to each schedule date. If the Permittee does not notify the Regional Administrator within fourteen (14) calendar days of its compliance or noncompliance with the schedule, the Permittee shall be subject to an enforcement action. Submittal of a required item according to the schedule constitutes notification of compliance.

I.D.14. Twenty-four Hour Reporting

I.D.14.a. The Permittee shall report any noncompliance or any imminent or existing hazard from a release of hazardous waste or hazardous constituents which may endanger human health or the environment. Any such information shall be reported orally to the Regional Administrator within 24 hours from the time the Permittee becomes aware of the circumstances. This report shall include:

- i. Information concerning the release of any hazardous waste or hazardous constituents which may endanger public drinking water supplies.
- ii. Information concerning the release or discharge of any hazardous waste or hazardous constituents, or of a fire or explosion at the facility, which could threaten the environment or human health outside the facility.

I.D.14.b. The description of the occurrence and its cause shall include:

- i. Name, address, and telephone number of the owner or operator;
- ii. Name, address, and telephone number of the facility;
- iii. Date, time, and type of incident;
- iv. Name and quantity of materials involved;
- v. The extent of injuries, if any;
- vi. An assessment of actual or potential hazard to the environment and human health outside the facility; and
- vii. Estimated quantity and disposition of recovered material that resulted from the incident.

I.D.14.c. A written report shall also be provided to the Regional Administrator within fifteen (15) calendar days of the time the Permittee becomes aware of the circumstances. The written report shall contain the information specified under Conditions I.D.14.a. and b.; a description of the noncompliance or imminent hazard and its cause; the periods of noncompliance (including exact dates and times); whether the noncompliance or imminent hazard has been corrected; and if not, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance or imminent hazard.

I.D.15. Other Noncompliance

The Permittee shall report all other instances of noncompliance not otherwise required to be reported above, at the time written reports as required by this permit are submitted. The reports shall contain the information listed in Condition I.D.14. as appropriate.

I.D.16. Other Information

Whenever the Permittee becomes aware that it failed to submit any relevant facts or submitted incorrect information in any document(s) submitted to the Regional Administrator, the Permittee shall promptly submit such facts or information.

I.E. SIGNATORY REQUIREMENT

All applications, reports, or information submitted to the Regional Administrator shall be signed and certified in accordance with 40 CFR §270.11.

I.F. CONFIDENTIAL INFORMATION

The Permittee may claim confidential any information required to be submitted by this permit in accordance with 40 CFR §270.12.

I.G. DEFINITIONS

For purposes of this permit, terms used herein shall have the same meaning as those in RCRA and 40 CFR Parts 124, 260, 261, 264, and 270, unless this permit specifically provides otherwise. Where terms are not defined in the regulation, the permit, or EPA guidelines or publications, the meaning associated with such terms shall be defined by a standard dictionary reference or the generally accepted scientific or industrial meaning of the term.

I.G.1. "Action levels" for the purposes of this permit are health-based concentrations of hazardous constituents determined to be indicators for the protection of human health and/or the environment.

I.G.2. The term "area of concern" (AOC) for purposes of this permit includes any area having a probable release of a hazardous waste or hazardous constituent which is not from a solid waste management unit and is determined by the Regional Administrator to pose a current or potential threat to human health or the environment. Such areas of concern may require investigations and remedial action as required under Section 3005(c)(3) of the Resource Conservation and Recovery Act and 40 CFR §270.32(b)(2) in order to ensure adequate protection of human health and the environment.

I.G.3. A "Corrective Action Management Unit" (CAMU) for purposes of this permit, includes any area within a facility that is designated by the Regional Administrator under part 264 Subpart S, for the purpose of implementing corrective action requirements under §264.101 and RCRA section 3008(h). A CAMU shall

only be used for the management of remediation wastes pursuant to implementing such corrective action requirements at the facility.

- I.G.4. "Corrective measures" for purposes of this permit, include all corrective action necessary to protect human health and the environment for all releases of hazardous waste or hazardous constituents from any solid waste management unit at the facility, regardless of the time at which waste was placed in the unit, as required under 40 CFR §264.101. Corrective measures may address releases to air, soils, surface water or groundwater.
- I.G.5. "Extent of contamination" for the purposes of this permit is defined as the horizontal and vertical area in which the concentrations of hazardous constituents in the environmental media being investigated are above detection limits or background concentrations indicative of the region, whichever is appropriate as determined by the Regional Administrator.
- I.G.6. "Facility" for purposes of this permit includes all contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, or disposing of hazardous waste. A facility may consist of several treatment, storage, or disposal operational units (e.g. one or more landfills, surface impoundments, or combination of them). For the purposes of implementing corrective action under §264.101, a facility includes all contiguous property under the control of the owner or operator seeking a permit under Subtitle C of RCRA.
- I.G.7. A "hazardous constituent" for purposes of this permit are those substances listed in 40 CFR Part 261 Appendix VIII and Part 264 Appendix IX.
- I.G.8. "Interim Measures" for purposes of this permit are actions necessary to minimize or prevent the further migration of contaminants and limit actual or potential human and environmental exposure to contaminants while long-term corrective action remedies are evaluated and, if necessary, implemented.
- I.G.9. "Land Disposal" for purposes of this permit and 40 CFR Part 268 means placement in or on the land except for a CAMU and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, underground mine or cave, or concrete vault or bunker intended for disposal purposes.
- I.G.10. "Landfill" for the purposes of this permit includes any disposal facility or part of a facility where hazardous waste is placed in or on the land and which is not a pile, a land treatment facility, a surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground mine, a cave, or a corrective action management unit.
- I.G.11. A "release" for purposes of this permit includes any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment of any hazardous waste or hazardous constituents.
- I.G.12. "Remediation waste" for the purposes of this permit includes all solid and hazardous wastes, and all media (including groundwater, surface water, soils, and sediments) and debris, which contain listed hazardous wastes or which themselves exhibit a hazardous waste characteristic, that are managed for the purpose of implementing corrective action requirements under §264.101 and RCRA section 3008(h). For a given facility, remediation wastes may originate only from within the facility boundary, but may include waste managed in implementing RCRA sections 3004(v) or 3008(h) for releases beyond the facility boundary.
- I.G.13. "Solid waste" means any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations,

and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under section 402 of the Federal Water Pollution Control Act, as amended (86 Stat. 880), or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended (68 Stat. 923).

- I.G.14. A "solid waste management unit" (SWMU) for the purposes of this permit includes any unit which has been used for the treatment, storage, or disposal of solid waste at any time, irrespective of whether the unit is or ever was intended for the management of solid waste. RCRA regulated hazardous waste management units are also solid waste management units. SWMUs include areas that have been contaminated by routine and systematic releases of hazardous waste or hazardous constituents, excluding one-time accidental spills that are immediately remediated and cannot be linked to solid waste management activities (e.g. product or process spills).
- I.G.15. A "Temporary Unit" (TU) for the purposes of this permit includes any temporary tanks and/or container storage areas used solely for treatment or storage of hazardous remediation wastes during specific remediation activities. Designated by the Regional Administrator, such units must conform to specific standards, and may only be in operation for a period of time as specified in this permit.
- I.G.16. A "unit" for the purposes of this permit includes, but is not limited to, any landfill, surface impoundment, waste pile, land treatment unit, incinerator, injection well, tank, container storage area, septic tank, drain field, wastewater treatment unit, elementary neutralization unit, transfer station, or recycling unit.

PART II - CORRECTIVE ACTION

II.A. APPLICABILITY

The Conditions of this Part apply to:

- II.A.1. The solid waste management units (SWMUs) and areas of concern (AOCs) identified in Appendix A-1, which require a RCRA Facility Investigation (RFI);
- II.A.2. The SWMUs and AOCs identified in Appendix A-2, which require no further investigation under this permit at this time;
- II.A.3. The SWMUs and AOCs identified in Appendix A-3, which require confirmatory sampling;
- II.A.4. Any additional SWMUs or AOCs discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means; As used in this Part of the permit, the terms "discover", "discovery", or "discovered" refer to the date on which the Permittee either, (1) visually observes evidence of a new SWMU or AOC, (2) visually observes evidence of a previously unidentified release of hazardous constituents to the environment, or (3) receives information which suggests the presence of a new release of hazardous waste or hazardous constituents to the environment;
- II.A.5. Contamination which has migrated beyond the facility boundary, if applicable. The Permittee shall implement corrective actions beyond the facility boundary where necessary to protect human health and the environment, unless the Permittee demonstrates to the satisfaction of the Regional Administrator that, despite the Permittee's best efforts, as determined by the Regional Administrator, the Permittee was unable to obtain the necessary permission to undertake such actions. The Permittee is not relieved of all responsibility to clean up a release that has migrated beyond the facility boundary where off-site access is denied. On-site measures to address such releases will be determined on a case-by-case basis. Assurances of financial responsibility for completion of such off-site corrective action will be required.

II.B. NOTIFICATION AND ASSESSMENT REQUIREMENTS FOR NEWLY IDENTIFIED SWMUs AND AOCs

- II.B.1. The Permittee shall notify the Regional Administrator in writing, within fifteen (15) calendar days of discovery, of any suspected new AOC as discovered under Condition II.A.4. The notification shall include, at a minimum, the location of the AOC and all available information pertaining to the nature of the release (e.g., media affected, hazardous constituents released, magnitude of release, etc.). The Regional Administrator may conduct, or require the Permittee to conduct, further assessment (i.e., Confirmatory Sampling) in order to determine the status of the suspected AOC. The Regional Administrator will notify the Permittee in writing of the final determination as to the status of the suspected AOC. If the Regional Administrator determines that further investigation of an AOC is required, the permit will be modified in accordance with 40 CFR §270.41.
- II.B.2. The Permittee shall notify the Regional Administrator in writing, within fifteen (15) calendar days of discovery, of any additional SWMU as discovered under Condition II.A.4.
- II.B.3. The Permittee shall prepare and submit to the Regional Administrator, within ninety (90) calendar days of notification, a SWMU Assessment Report (SAR) for each SWMU identified under Condition II.B.2. At a minimum, the SAR shall provide the following information:

- a. Location of unit(s) on a topographic map of appropriate scale such as required under 40 CFR §270.14(b)(19).
- b. Designation of type and function of unit(s).
- c. General dimensions, capacities and structural description of unit(s) (supply any available plans/drawings).
- d. Dates that the unit(s) was operated.
- e. Specification of all wastes that have been managed at/in the unit(s) to the extent available. Include any available data on hazardous constituents in the wastes.
- f. All available information pertaining to any release of hazardous waste or hazardous constituents from such unit(s) (to include groundwater data, soil analyses, air, and/or surface water data).

II.B.4. Based on the results of the SAR, the Regional Administrator shall determine the need for further investigations at the SWMUs covered in the SAR. If the Regional Administrator determines that such investigations are needed, the Permittee shall be required to prepare a plan for such investigations as outlined in Condition II.E.1.b. or II.D.2.

II.C. NOTIFICATION REQUIREMENTS FOR NEWLY DISCOVERED RELEASES FROM SWMUs or AOCs

II.C.1. The Permittee shall notify the Regional Administrator in writing of any newly discovered release(s) of hazardous waste or hazardous constituents discovered during the course of groundwater monitoring, field investigations, environmental audits, or other means, within fifteen (15) calendar days of discovery. Such newly discovered releases may be from SWMUs or AOCs identified in Condition II.A.2. or SWMU or AOCs identified in Condition II.A.4. for which further investigation under Condition II.B.4. was not required.

II.C.2. If the Regional Administrator determines that further investigation of the SWMUs or AOCs is needed, the Permittee shall be required to prepare a plan for such investigations as outlined in Condition II.E.1.b.

II.D. CONFIRMATORY SAMPLING (CS)

II.D.1. The Permittee shall prepare and submit a Confirmatory Sampling (CS) Work Plan for each unit identified under Condition II.A.3. The CS Work Plan shall be submitted within forty-five (45) calendar days of notification by the Regional Administrator. The CS Work Plan shall include schedules of implementation and completion of specific actions necessary to determine whether or not a release has occurred. It should also address applicable requirements and affected media. In order to partly or wholly satisfy the CS requirement, previously existing data may be submitted with the work plan for the Regional Administrator's consideration.

II.D.2. Upon notification by the Regional Administrator, the Permittee shall prepare and submit a Confirmatory Sampling (CS) Work Plan for suspected AOCs per Condition II.B.1. or newly identified SWMUs per Condition II.B.4. The work plan shall be submitted within forty-five (45) calendar days of notification by the Regional Administrator that a CS Work Plan is required. The CS Work Plan shall meet the basic requirements listed in Condition II.D.1.

II.D.3. The CS Work Plan must be approved by the Regional Administrator, in writing, prior to implementation. The Regional Administrator shall specify the start date of the CS Work Plan schedule in the letter approving the CS Work Plan. If the Regional Administrator disapproves the CS Work Plan, the Regional

Administrator shall either (1) notify the Permittee in writing of the CS Work Plan's deficiencies and specify a due date for submission of a revised CS Work Plan, (2) revise the CS Work Plan and notify the Permittee of the revisions, or (3) conditionally approve the CS Work Plan and notify the Permittee of the conditions.

II.D.4. The Permittee shall implement the confirmatory sampling in accordance with the approved CS Work Plan.

II.D.5. The Permittee shall prepare and submit to the Regional Administrator in accordance with the schedule in the approved CS Work Plan, a Confirmatory Sampling (CS) Report identifying all SWMUs or AOCs that have released hazardous waste or hazardous constituents into the environment. The CS Report shall include all data, including raw data, and a summary and analysis of the data, that supports the above determination. If submittal of the CS Report coincides with submittal of the RFI Report, then the CS Report and the RFI Report may be combined into one submittal.

II.D.6. Based on the results of the CS Report, the Regional Administrator shall determine the need for further investigations at the SWMUs or AOCs covered in the CS Report. If the Regional Administrator determines that such investigations are needed, the Permittee shall be required to prepare a plan for such investigations as outlined in Condition II.E.1.b. The Regional Administrator will notify the Permittee of any no further action decision.

II.E. RCRA FACILITY INVESTIGATION (RFI)

II.E.1. RFI Work Plan(s)

II.E.1.a. The Permittee shall prepare and submit to the Regional Administrator, within ninety (90) calendar days of the effective date of this permit, a RCRA Facility Investigation (RFI) Work Plan(s) for those units identified in Condition II.A.1. This Work Plan shall be developed to meet the requirements of Condition II.E.1.c.

II.E.1.b. The Permittee shall prepare and submit to the Regional Administrator, within ninety (90) calendar days of notification by the Regional Administrator, an RFI Work Plan for those units identified under Condition II.B.4., Condition II.C.2., or Condition II.D.6. The RFI Work Plan(s) shall be developed to meet the requirements of Condition II.E.1.c.

II.E.1.c. The RFI Work Plan(s) shall meet the requirements of Appendix B. The RFI Work Plan(s) shall include schedules of implementation and completion of specific actions necessary to determine the nature and extent of contamination and the potential pathways of contaminant releases to the air, soil, surface water, and groundwater. The Permittee must provide sufficient justification and associated documentation that a release is not probable or has already been characterized if a unit or a media/pathway associated with a unit (groundwater, surface water, soil, subsurface gas, or air) is not included in the RFI Work Plan(s). Such deletions of a unit, media or pathway from the RFI(s) are subject to the approval of the Regional Administrator. The Permittee shall provide sufficient written justification for any omissions or deviations from the minimum requirements of Appendix B. Such omissions or deviations are subject to the approval of the Regional Administrator. In addition, the scope of the RFI Work Plan(s) shall include all investigations necessary to ensure compliance with 40 CFR §264.101(c).

II.E.1.d. The RFI Work Plan(s) must be approved by the Regional Administrator, in writing, prior to implementation. The Regional Administrator shall specify the start date of the RFI Work Plan schedule in the letter approving the RFI Work Plan(s). If the Regional Administrator disapproves the RFI Work Plan(s), the Regional Administrator shall either (1) notify the Permittee in writing of the RFI Work Plan's deficiencies and specify a due date for submission of a revised RFI Work Plan, (2) revise the RFI Work Plan and notify the Permittee of the revisions and the start date of the schedule within the approved RFI Work Plan, or (3) conditionally approve the RFI Work Plan and notify the Permittee of the conditions.

II.E.2. RFI Implementation

The Permittee shall implement the RFI(s) in accordance with the approved RFI Work Plan(s) and Appendix B. The Permittee shall notify the Regional Administrator at least twenty (20) days prior to any sampling activity.

II.E.3. RFI Reports

II.E.3.a. The Permittee shall prepare and submit to the Regional Administrator Draft and Final RCRA Facility Investigation Report(s) for the investigations conducted pursuant to the RFI Work Plan(s) submitted under Condition II.E.1. The Draft RFI Report(s) shall be submitted to the Regional Administrator for review in accordance with the schedule in the approved RFI Work Plan(s). The Final RFI Report(s) shall be submitted to the Regional Administrator within thirty (30) calendar days of receipt of the Regional Administrator's final comments on the Draft RFI Report. The RFI Report(s) shall include an analysis and summary of all required investigations of SWMUs and AOCs and their results. The summary shall describe the type and extent of contamination at the facility, including sources and migration pathways, identify all hazardous constituents present in all media, and describe actual or potential receptors. The RFI Report(s) shall also describe the extent of contamination (qualitative/quantitative) in relation to background levels indicative of the area. If the Draft RFI Report is a summary of the initial phase investigatory work, the report shall include a work plan for the final phase investigatory actions required based on the initial findings. Approval of the final phase work plan shall be carried out in accordance with Condition II.E.1.d. The objective of this task shall be to ensure that the investigation data are sufficient in quality (e.g., quality assurance procedures have been followed) and quantity to describe the nature and extent of contamination, potential threat to human health and/or the environment, and to support a Corrective Measures Study, if necessary.

II.E.3.b. The Permittee shall prepare and submit to the Regional Administrator, along with the Draft and Final RFI Report(s), action levels for each of the hazardous constituents reported in Condition II.E.3.a. Action levels shall be calculated as specified in Appendix E of this permit.

II.E.3.c. The Regional Administrator will review the RFI Report(s), including the action levels described in Condition II.E.3.b. The Regional Administrator shall notify the Permittee of the need for further investigative action if necessary and, if appropriate at this moment of the investigation, inform the Permittee, if not already notified, of the need for a Corrective Measures Study to meet the requirements of II.G and 40 CFR §264.101. The Regional Administrator will notify the permittee of any no further action decision. Any further investigative action required by the Regional Administrator shall be prepared and submitted in accordance with a schedule specified by the Regional Administrator and approved in accordance with Condition II.E.1.d.

II.E.3.d. If the time required to conduct the RFI(s) is greater than one hundred eighty (180) calendar days, the Permittee shall provide the Regional Administrator with quarterly RFI Progress Reports (90 day intervals) beginning ninety (90) calendar days from the start date specified by the Regional Administrator in the RFI Work Plan approval letter. The Progress Reports shall contain the following information at a minimum:

- i. A description of the portion of the RFI completed;
- ii. Summaries of findings;
- iii. Summaries of any deviations from the approved RFI Work Plan during the reporting period;
- iv. Summaries of any significant contacts with local community public interest groups or State government;

- v. Summaries of any problems or potential problems encountered during the reporting period;
- vi. Actions taken to rectify problems;
- vii. Changes in relevant personnel;
- viii. Projected work for the next reporting period; and
- ix. Copies of daily reports, inspection reports, data, etc.

II.F. INTERIM MEASURES (IM)

II.F.1. IM Work Plan

II.F.1.a. Upon notification by the Regional Administrator, the Permittee shall prepare and submit an Interim Measures (IM) Work Plan for any SWMU or AOC which the Regional Administrator determines is necessary. IM are necessary in order to minimize or prevent the further migration of contaminants and limiting actual or potential human and environmental exposure to contaminants while long-term corrective action remedies are evaluated and, if necessary, implemented. The IM Work Plan shall be submitted within thirty (30) calendar days of such notification and shall include the elements listed in II.F.1.b. Such interim measures may be conducted concurrently with investigations required under the terms of this permit.

II.F.1.b. The Permittee may initiate IM at a SWMU or AOC by submitting the appropriate notification pursuant to Condition I.D.10. The Regional Administrator will process Permittee initiated IM by either conditionally approving the IM or imposing an IM Work Plan per Condition II.F.1.a. Permittee-initiated IM shall be considered conditionally approved unless the Regional Administrator specifically imposes an IM Work Plan within thirty (30) calendar days of receipt of notification of the Permittee initiated IM. The scope and success of Permittee initiated IM conditionally approved per Condition II.F.1.b. shall be subject to subsequent in-depth review; the Regional Administrator will either comment on or approve the Permittee initiated IM. Permittee initiated IM must follow the progress and final reporting requirements in Condition II.F.3.

II.F.1.c. The IM Work Plan shall ensure that the interim measures are designed to mitigate any current or potential threat(s) to human health or the environment and is consistent with and integrated into any long-term solution at the facility. The IM Work Plan shall include: the interim measures objectives, procedures for implementation (including any designs, plans, or specifications), and schedules for implementation.

II.F.1.d. The IM Work Plan imposed under Condition II.F.1.a. must be approved by the Regional Administrator, in writing, prior to implementation. The Regional Administrator shall specify the start date of the IM Work Plan schedule in the letter approving the IM Work Plan. If the Regional Administrator disapproves the IM Work Plan, the Regional Administrator shall either (1) notify the Permittee in writing of the IM Work Plan's deficiencies and specify a due date for submission of a revised IM Work Plan, (2) revise the IM Work Plan and notify the Permittee of the revisions and the start date of the schedule within the approved IM Work Plan, or (3) conditionally approve the IM Work Plan and notify the Permittee of the conditions.

II.F.2. IM Implementation

II.F.2.a. The Permittee shall implement the interim measures imposed under Condition II.F.1.a. in accordance with the approved IM Work Plan.

II.F.2.b. The Permittee shall give notice to the Regional Administrator as soon as possible of any planned changes, reductions or additions to the IM Work Plan imposed under Condition II.F.1.a. or initiated by the Permittee under Condition II.F.1.b.

II.F.2.c. Final approval of corrective action required under 40 CFR §264.101 which is achieved through interim measures shall be in accordance with 40 CFR §270.41 and Condition II.H. as a permit modification.

II.F.3. IM Reports

II.F.3.a. If the time required for completion of interim measures imposed under Condition II.F.1.a. or implemented under Condition II.F.1.b. is greater than one year, the Permittee shall provide the Regional Administrator with progress reports at intervals specified in the approved Work Plan or semi-annually for Permittee initiated interim measures. The Progress Reports shall contain the following information at a minimum:

- i. A description of the portion of the interim measures completed;
- ii. Summaries of findings;
- iii. Summaries of any deviations from the IM Work Plan during the reporting period;
- iv. Summaries of any problems or potential problems encountered during the reporting period; and
- v. Projected work for the next reporting period.

II.F.3.b. The Permittee shall prepare and submit to the Regional Administrator, within ninety (90) calendar days of completion of interim measures conducted under Condition II.F., an Interim Measures (IM) Report. The IM Report shall contain the following information at a minimum:

- i. A description of interim measures implemented;
- ii. Summaries of results;
- iii. Summaries of all problems encountered;
- iv. Summaries of accomplishments and/or effectiveness of interim measures; and
- v. Copies of all relevant laboratory/monitoring data, etc. in accordance with Condition I.D.9.

II.G. CORRECTIVE MEASURES STUDY

II.G.1. Corrective Measures Study (CMS) Work Plan

II.G.1.a. The Permittee shall prepare and submit a CMS Work Plan for those units requiring a CMS within ninety (90) calendar days of notification by the Regional Administrator that a CMS is required. This CMS Work Plan shall be developed to meet the requirements of Condition II.G.1.b. The Permittee may seek approval from the Regional Administrator for concurrent RFI/CMS. The CMS may be performed concurrent with the RFI process if the Regional Administrator determines that sufficient investigative details are available to allow concurrent action.

II.G.1.b. The CMS Work Plan shall meet the requirements of Appendix C at a minimum. The CMS Work Plan shall include schedules of implementation and completion of specific actions necessary to complete a CMS. The Permittee must provide sufficient justification and/or documentation for any unit deleted from the CMS

Work Plan. Such deletion of a unit is subject to the approval of the Regional Administrator. The CMS shall be conducted in accordance with the approved CMS Work Plan. The Permittee shall provide sufficient written justification for any omissions or deviations from the minimum requirements of Appendix C. Such omissions or deviations are subject to the approval of the Regional Administrator. The scope of the CMS Work Plan shall include all investigations necessary to ensure compliance with 3005(c)(3), 40 CFR §264.101, §264.552, and §270.32(b)(2). The Permittee shall implement corrective actions beyond the facility boundary, as set forth in Condition II.A.5.

- II.G.1.c. The Regional Administrator shall either approve or disapprove, in writing, the CMS Work Plan. If the Regional Administrator disapproves the CMS Work Plan, the Regional Administrator shall either (1) notify the Permittee in writing of the CMS Work Plan's deficiencies and specify a due date for submittal of a revised CMS Work Plan, (2) revise the CMS Work Plan and notify the Permittee of the revisions, or (3) conditionally approve the CMS Work Plan and notify the Permittee of the conditions. This modified CMS Work Plan becomes the approved CMS Work Plan.

II.G.2. Corrective Measures Study Implementation

The Permittee shall begin to implement the Corrective Measures Study according to the schedules specified in the CMS Work Plan, no later than fifteen (15) calendar days after the Permittee has received written approval from the Regional Administrator for the CMS Work Plan. Pursuant to Permit Condition II.G.1.b. the CMS shall be conducted in accordance with the approved CMS Work Plan.

II.G.3. CMS Report

- II.G.3.a. The Permittee shall prepare and submit to the Regional Administrator a draft and final CMS Report for the study conducted pursuant to the approved CMS Work Plan and in accordance with Appendix C. The draft CMS Report shall be submitted to the Regional Administrator in accordance with the schedule in the approved CMS Work Plan. The final CMS Report shall be submitted to the Regional Administrator within thirty (30) days of receipt of the Regional Administrator's final comments on the draft CMS Report. The CMS Report shall summarize any bench-scale or pilot tests conducted. The CMS Report must include an evaluation of each remedial alternative. If a remedial alternative requires the use of a CAMU, the CMS report shall include all information necessary to establish and implement the CAMU. The CMS Report shall present all information gathered under the approved CMS Work Plan. The CMS Final Report must contain adequate information to support the Regional Administrator's decision on the recommended remedy, described under Permit Condition II.H.

- II.G.3.b. If the Regional Administrator determines that the CMS Final Report does not fully satisfy the information requirements specified under Permit Condition II.G.3.a., the Regional Administrator may disapprove the CMS Final Report. If the Regional Administrator disapproves the CMS Final Report, the Regional Administrator shall notify the Permittee in writing of deficiencies in the CMS Final Report and specify a due date for submittal of a revised CMS Final Report. The Regional Administrator will notify the Permittee of any no further action decision.

- II.G.3.c. As specified under Permit Condition II.G.3.b., based on preliminary results and the CMS Final Report, the Regional Administrator may require the Permittee to evaluate additional remedies or particular elements of one or more proposed remedies.

II.H. REMEDY APPROVAL AND PERMIT MODIFICATION

- II.H.1. A remedy shall be selected from the remedial alternatives evaluated in the CMS. It will be based at a minimum on protection of human health and the environment, as per specific site conditions and existing regulations. The selected remedy may include any interim measures implemented to date.

II.H.2. Pursuant to 40 CFR §270.41, a permit modification will be initiated by the Regional Administrator after recommendation of a remedy under Condition II.H.1. This modification will serve to incorporate a final remedy, including a CAMU if necessary, into this permit.

II.H.3. Within one hundred and twenty (120) calendar days after this Permit has been modified for remedy selection, the Permittee shall demonstrate financial assurance for completing the approved remedy.

II.I. MODIFICATION OF THE CORRECTIVE ACTION SCHEDULE OF COMPLIANCE

II.I.1. If at any time the Regional Administrator determines that modification of the Corrective Action Schedule of Compliance is necessary, the Regional Administrator may initiate a modification to the Schedule of Compliance (Appendix D).

II.I.2. Modifications that are initiated and finalized by the Regional Administrator will be in accordance with the applicable provisions of 40 CFR Part 270. The Permittee may also request a permit modification in accordance with 40 CFR Part 270 to change the Schedule of Compliance.

II.J. WORK PLAN AND REPORT REQUIREMENTS

II.J.1. All work plans and schedules shall be subject to approval by the Regional Administrator prior to implementation to assure that such work plans and schedules are consistent with the requirements of this Permit and with applicable regulations. The Permittee shall revise all submittals and schedules as specified by the Regional Administrator. Upon approval the Permittee shall implement all work plans and schedules as written.

II.J.2. All work plans and reports shall be submitted in accordance with the approved schedule. Extensions of the due date for submittals may be granted by the Regional Administrator based on the Permittee's demonstration that sufficient justification for the extension exists.

II.J.3. If the Permittee at any time determines that the SAR information required under Condition II.B., the CS Work Plan under Condition II.D., or RFI Work Plan(s) required under Condition II.E. no longer satisfy the requirements of 40 CFR §264.101 or this permit for prior or continuing releases of hazardous waste or hazardous constituents from solid waste management units and/or areas of concern, the Permittee shall submit an amended Work Plan(s) to the Regional Administrator within ninety (90) calendar days of such determination.

II.J.4. Three (3) copies of all reports and work plans shall be provided by the Permittee to the Regional Administrator in care of the RCRA Branch Chief at the following address:

Chief, RCRA Programs Branch
Waste Management Division
U.S. Environmental Protection Agency
Sam Nunn Atlanta Federal Center
61 Forsyth Street, S. W.
Atlanta, Georgia 30303-3104

II.K. APPROVAL/DISAPPROVAL OF SUBMITTALS

II.K.1. The Regional Administrator will review the work plans, reports, schedules, and other documents ("submittals") which require the Regional Administrator's approval in accordance with the conditions of this permit. The Regional Administrator will notify the Permittee in writing of any submittal that is disapproved, and the basis therefore. Condition II.L. shall apply only to submittals that have been disapproved and revised by the Regional

Administrator, or that have been disapproved by the Regional Administrator, then revised and resubmitted by the Permittee, and again disapproved by the Regional Administrator.

II.L. DISPUTE RESOLUTION

Notwithstanding any other provision in this permit, in the event the Permittee disagrees, in whole or in part, with the Regional Administrator's revision of a submittal or disapproval of any revised submittal required by the permit, the following may, at the Permittee's discretion, apply:

- II.L.1.a. In the event that the Permittee chooses to invoke the provisions of this section, the Permittee shall notify the Regional Administrator in writing within thirty (30) days of receipt of the Regional Administrator's revision of a submittal or disapproval of a revised submittal. Such notice shall set forth the specific matters in dispute, the position the Permittee asserts should be adopted as consistent with the requirements of the permit, the basis for the Permittee's position, and any matters considered necessary for the Regional Administrator's determination.
- II.L.1.b. The Regional Administrator and the Permittee shall have an additional thirty (30) days from EPA's receipt of the notification provided for in Condition II.L.1.a. to meet or confer to resolve any disagreement.
- II.L.1.c. In the event agreement is reached, the Permittee shall comply with the terms of such agreement or if appropriate submit the revised submittal and implement the same in accordance with and within the time frame specified in such agreement.
- II.L.1.d. If agreement is not reached within the thirty (30) day period, the Regional Administrator will notify the Permittee in writing of his/her decision on the dispute, and the Permittee shall comply with the terms and conditions of the Regional Administrator's decision in the dispute. For the purposes of this provision in this permit, the responsibility for making this decision shall not be delegated below the Waste Management Division Director.
- II.L.1.e. With the exception of those conditions under dispute, the Permittee shall proceed to take any action required by those portions of the submission and of the permit that the Regional Administrator determines are not affected by the dispute.

PART III - LAND DISPOSAL RESTRICTIONS

III.A. GENERAL RESTRICTIONS

- III.A.1. 40 CFR Part 268 identifies hazardous wastes that are restricted from land disposal and defines those limited circumstances under which an otherwise prohibited waste may continue to be placed on or in a land treatment, storage or disposal unit. The Permittee shall maintain compliance with the requirements of 40 CFR Part 268. Where the Permittee has applied for an extension, waiver or variance under 40 CFR Part 268, the Permittee shall comply with all restrictions on land disposal under this Part once the effective date for the waste has been reached pending final approval of such application.

III.B. LAND DISPOSAL PROHIBITIONS AND TREATMENT STANDARDS

- III.B.1. A restricted waste identified in 40 CFR Part 268 Subpart C may not be placed in a land disposal unit without further treatment unless the requirements of 40 CFR Part 268 Subparts C and/or D are met.
- III.B.2. The storage of hazardous wastes restricted from land disposal under 40 CFR Part 268 is prohibited unless the requirements of 40 CFR Part 268 Subpart E are met.

PART IV - RCRA ORGANIC AIR EMISSION REQUIREMENTS

IV.A. APPLICABILITY

- IV.A.1. 40 CFR Subpart CC applies to all tanks, containers and surface impoundments identified in the State RCRA permit, except as provided for in 40 CFR § 264.1 and § 264.1080(b).
- IV.A.2. The Conditions of this Part apply to hazardous waste management units identified below and also in Appendix F, for which required control equipment has been installed and is operational or are exempt from Subpart CC standards under § 264.1082(c).

Table IV.A.2. Hazardous Waste Management Units for Which Subpart CC Emissions Controls are Installed		
HWMU Designation/ Identification Number	HWMU Type	Description of Air Emission Control System
There are no hazardous waste management units for which Subpart CC emissions controls are installed.		

IV.B. EMISSION CONTROL TECHNOLOGY

The Permittee shall install and maintain all regulated units and associated emission control technology in accordance with the detailed plans, schedules, information and reports.

IV.C. GENERAL STANDARDS

The Permittee shall comply with the applicable requirements of 40 CFR Part 264, Subpart CC. If the Organic Air Emission control equipment is not installed and operational by December 6, 1996, the Permittee is required to submit a Schedule for Implementation in accordance 40 CFR § 265.1082. The Schedule for Implementation shall indicate that the Organic Air Emission Control equipment be installed and operational as soon as possible, but no later than December 8, 1997 for units subject to Subpart CC, except controls on tanks used for stabilization, and June 8, 1998 for tanks used for stabilization that are subject to Subpart CC. The Permittee shall comply with 40 CFR Part 265, Subpart CC until such time the Organic Air Emission Control equipment is installed and operational. Upon approval of the final Organic Air Emissions Control Option, this Permit will be modified in accordance with 40 CFR § 270.42.

IV.D. REPORTING REQUIREMENTS

- IV.D.1. For each tank, container or miscellaneous unit which manages hazardous waste that is exempted from using air emission controls, a written report shall be submitted to the Regional Administrator within fifteen (15) days of each occurrence when hazardous waste is placed in the waste management unit in noncompliance with the Conditions of 40 CFR §§ 264.1082(c)(1) or (c)(2), as applicable. The written report shall contain the EPA identification number, facility name and address, a description of the noncompliance event and the cause, the dates of the noncompliance, and the actions taken to correct the noncompliance and prevent reoccurrence of the noncompliance.

- IV.D.2. For tanks listed in Conditions II.A.2., which use air emission controls in accordance with the requirements 40 CFR § 264.1084(c), a written report shall be submitted to the Regional Administrator within fifteen (15) days of each occurrence when hazardous waste is managed in the tank in noncompliance with the Conditions specified in 40 CFR § 264.1084(c)(1) through (c)(4). The written report shall contain the EPA identification number, facility name and address, a description of the noncompliance event and the cause, the dates of the noncompliance, and the actions taken to correct the noncompliance and prevent reoccurrence of the noncompliance.
- IV.D.3. For control devices used in accordance with the requirements of 40 CFR § 264.1087, a semiannual written report shall be submitted to the Regional Administrator except as provided for in Condition II.D.4. of this Part. The report shall describe each occurrence during the previous 6-month period when a control device is operated continuously for 24 hours or longer in noncompliance with the applicable operating values defined in 40 CFR § 264.1035(c)(4) or when a flare is operated with visible emissions as defined in 40 CFR § 264.1033(d). The written report shall include the EPA identification number, facility name and address, and an explanation why the control device could not be returned to compliance within 24 hours, and actions taken to correct the noncompliance.
- IV.D.4. A report to the Regional Administrator in accordance with the requirements of Condition II.D.3. of this Part is not required for a 6-month period during which all control devices subject to 40 CFR Part 264, Subpart CC are operated by the owner or operator such that during no period of 24 hours or longer did a control device operate continuously in noncompliance with the applicable operating values defined in 40 CFR § 264.1035(c)(4) of this part or a flare operate with visible emissions as defined in 40 CFR § 264.1033(d).
- IV.D.5. All reports shall be signed and dated by an authorized representative of the Permittee as per 40 CFR § 270.11(b).

IV.E. NOTIFICATION OF NEW UNITS

Prior to installing any tank, container, surface impoundment or miscellaneous unit subject to 40 CFR Part 264, Subpart CC, or modifying an existing process, waste handling or tank or container such that the unit(s) will become subject to 40 CFR Part 264 Subpart CC, the Permittee shall apply for a permit modification under § 270.42, and provide specific Part B application information required under 40 CFR §§ 270.14-17 and § 270.27, as applicable, with the modification request.

APPENDICES

APPENDIX A

SOLID WASTE MANAGEMENT UNIT SUMMARY

A.1. List of solid waste management units (SWMUs) and areas of concern (AOCs) requiring a RCRA Facility Investigation (RFI):				
SWMU/AOC No/Letter	SWMU/AOC Name	Unit Comment	Dates of Operation	Potentially Affected Media¹
SWMU 2	Equalization Lagoon	Surface Impoundment	1961-1994	A, SS, SW, GW, S
SWMU 3	On-Site Landfill	Landfill	1961-1967	A, SS, SW, GW, S
SWMU 4	Sludge Lagoon	Surface Impoundment	1977-Present	A, SS, SW, GW, S
SWMU 7	Outfall Ditch	Ditch	1961-Present	A, SS, SW, GW, S
SWMU 12	Wet Well	Inground Tank	1977-Present	A, SS, SW, GW, S
SWMU 14	Destruct Pit	Chromium Reduction Unit/ Holding Sump	1961-Present	A, SS, SW, GW, S
AOC A	Former TCE Storage Area	Contamination Area	≈1973-Present	A, SS, SW, GW, S
AOC B	Former Toluene UST Area	Contamination Area	Late 1960s- Present	A, SS, SW, GW, S

¹Potentially Affected Media:

A - Air

SS- Subsurface Gas

SW - Surface Water

GW - Ground Water

S - Soil

A.2. List of solid waste management units (SWMUs) and areas of concern (AOCs) requiring no further action at this time:

SWMU/AOC No/Letter	SWMU/AOC Name	Unit Comment and Basis for NFA	Dates of Operation	Potentially Affected Media ¹
SWMU 1	Less Than 90-day Drum Storage Area	Container Storage Area	Mid 1980s-Present	NA
SWMU 5	Former Solid Waste Incinerators	Incinerators	1961-1996	NA
SWMU 6	Equipment Laydown	Laydown Area	1961-Present	NA
SWMU 8	Former Burn Area	Burn Area	1961-Approx. 1974	NA
SWMU 9	Sumps A, B, & C ²	Sumps	1961-Present	NA
SWMU 10	Waste Oil Tank	Above-ground Storage Tank	1970s-Present	NA
SWMU 11	Waste Oil Catch Pans	Catch Pans	Approx. 1961- Present	NA
SWMU 16	Drainage Ditches	Ditches	1961-Present	NA
SWMU 17	Former IDW Drum Storage Area	Drum Storage Area	Early 1992-1993	NA
SWMU 18	Buffing Sludge Basement	Storage Basement	1961-Present	NA
SWMU 19	Buffing Sludge Rolloff	Rolloff Container	1985-Present	A, SS, SW, GW,S
* Unit Regulated by State Permit				

A.2. List of solid waste management units (SWMUs) and areas of concern (AOCs) requiring a no further action at this time (continued):

SWMU/AOC No/Letter	SWMU/AOC Name	Unit Comment	Dates of Operation	Potentially Affected Media ¹
SWMU 20	Plant Waste Containers	Hoppers and Drums	1961-Present	NA
SWMU 21	Parts Washers	Parts Washers	Jan. 1990-Present	NA
SWMU 22	Cyclone Dust	Air Emissions Control	Approx 1960 - Present	NA
SWMU 23	Biohazard Container	Container	1960s-Present	NA
SWMU 24	Satellite Accumulation Areas A ₂ , B ₂ , C ₂ , D ₂ & E ³	Satellite Accumulation Drums	Approx 1976 - Present	NA
SWMU 25	Scrap Metal Rolloffs	Rolloff Containers	1960s-Present	NA
SWMU 26	Trash Compactor	Compactor	1996-Present	NA

¹ Potentially Affected Media:

A - Air
SS- Subsurface Gas
SW - Surface Water
GW - Ground Water
S - Soil
NA - Not Applicable

² Sumps A, B & C are defined as follows

A Waste Oil Sump
B Main Waste Oil Sump
C Verson Press Waste Oil Sump

³ Satellite Accumulation Areas A, B, C, D & E are defined as follows:

A Toluene Recovery Drum
B Waste Toluene Drum
C Spent Paint Filter Drum
D Waste Paint Rags Drum
E TCE Recovery Drum

A.3. List of solid waste management units (SWMUs) and areas of concern (AOCs) requiring Confirmatory Sampling:				
SWMU/AOC No/Letter	SWMU/AOC Name	Unit Comment	Dates of Operation	Potentially Affected Media
SWMU 13	Wastewater Treatment Plant	Treatment Plant	1977-Present	A, SS, SW, GW, S
SWMU 15	Process Sewers	Sewer System	1961-Present	A, SS, SW, GW, S
AOC C	Fuel Tank Farm Containment Area	Secondary Containment	1960s-Present	A, SS, SW, GW, S

Potentially Affected Media:

A - Air

SS- Subsurface Gas

SW - Surface Water

GW - Ground Water

S - Soil

APPENDIX B

RCRA FACILITY INVESTIGATION (RFI) OUTLINE

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RCRA FACILITY INVESTIGATION (RFI) OUTLINE

The purpose of the RFI portion of the RCRA corrective action process is to evaluate the nature and extent of releases of hazardous wastes and/or hazardous constituents and to gather necessary data to support the Corrective Measures Study (CMS) and/or Interim Measures. Planning for the investigation is best accomplished through a logical progression of tasks:

1. gather information on the source of the release(s) to the environment (Source Characterization),
2. gather information on the physical aspects of the environment which will affect the migration and fate of the release and identification of exposure pathways for both humans and non-human members of the environment (Environmental Setting),
3. use Source Characterization and Environmental Setting to develop a conceptual model of the release which will be used to plan and conduct a program to define the nature, rate and extent of the release (Sampling and Analysis Plan).

An RFI Work Plan and RFI Report are generally required elements of the RCRA corrective action process. The requirements for a full, detailed RFI are listed in this Appendix. EPA recognizes that each facility is unique. Therefore, the scope and requirements of the RFI shall be focused to fit the complexity of the site-specific situation. The work plan requirements listed in this Appendix in no way limit the site-specific opportunities for a Permittee. For example, the RFI may be implemented in phases. Relevant information contained in previously developed documents, such as a RCRA Part B permit application, may be referenced as appropriate, but must be summarized in either the RFI Work Plan or the RFI Report. In addition, EPA understands that Risk Assessments are becoming more widely utilized to place characterization information into context and to aid in determining remedial solutions. If a Risk Assessment is expected to be performed in the future, note that Region 4 has developed a series of Risk Bulletins to provide Permittees and their contractors with the general format and process Region 4 expects a Risk Assessment to follow.

In some cases, it may be possible to implement the RFI concurrent with the CMS (also see Appendix C). This approach can save time and money because the earlier in the corrective action process potential remedies can be identified, the more effectively information gathering can be focused. The Agency anticipates that a concurrent RFI/CMS approach may be appropriate in the following types of situations, among others: facilities where removal remedies have been proposed by the owner/operator, facilities with straightforward remedial solutions or where presumptive remedies can be applied, facilities where few remedial options are available, and facilities where the remedy is phased. The Agency will determine on a case-by-case basis if a concurrent RFI/CMS is appropriate. Because of the unique data collection requirements necessary for a remedial solution which includes natural attenuation of contaminants in groundwater, if natural attenuation is expected to be part of the remedial solution, then the Sampling and Analysis Plan should be crafted to include monitoring of specific water quality parameters unique to natural attenuation (e.g., nitrites/nitrates, ferrous iron, sulfides, dissolved oxygen, methane, hydrogen, etc.).

I. RFI WORK PLAN REQUIREMENTS - ELEMENTS OF THE RFI WORK PLAN

The RFI Work Plan shall include, at a minimum, the following elements:

A. Introduction - Summary of any relevant existing assessment data

The Permittee shall describe the purpose or objective of the RFI Work Plan and provide a summary of any existing environmental data which is relevant to the investigation. The summary should provide the following items, at a minimum:

1. land ownership history,
2. facility operating dates,
3. facility's product(s),
4. raw materials used in facility operations, wastes generated,
5. nature and extent of any known contamination,
6. summary of an ongoing Interim Measures and past assessments,
7. summary of permit objective and how this objective will be satisfied.

B. Environmental Setting

The Permittee shall provide information on the environmental setting at the facility. The Permittee shall characterize the Environmental Setting as it relates to identified sources, pathways and areas of releases of hazardous constituents from Solid Waste Management Units (SWMUs) and/or Areas of Concern (AOCs). Data gaps pertinent to characterization of releases shall be identified and provisions made in Section E to obtain the relevant information to fill the data gap. The Environmental Setting shall cover the following items, at a minimum:

1. Hydrogeology

The Permittee shall provide a summary of the hydrogeologic conditions at the facility. This discussion shall include, but not be limited to, the following information:

- a. A description of the regional and facility specific geologic and hydrogeologic characteristics affecting ground-water flow beneath the facility, including:
 - i) Regional and facility specific stratigraphy: description of strata including strike and dip, identification of stratigraphic contacts;
 - ii) Structural geology: description of local and regional structural features (e.g., folding, faulting, tilting, jointing, metamorphic foliation, etc.);
 - iii) Depositional history;
 - iv) Regional and facility specific ground-water flow patterns (porous media, fracture media, karst media); and
 - v) Identification and characterization of areas and amounts of recharge and discharge (springs in karst terrane, base level streams and rivers).
- b. An analysis of any topographic features that might influence the ground-water flow system (e.g., sinkholes and sinking streams in karst terranes).
- c. Based on any existing field data, tests (e.g., pump tests, tracer tests), and cores, a representative and accurate classification and description of the hydrogeologic units which may be part of the migration pathways at the facility (I. e., the aquifers and any intervening saturated and unsaturated units), including:
 - i) Hydraulic conductivity and porosity (total and effective), groundwater flow velocity, groundwater basin discharge;
 - ii) Lithology, grain size, sorting, degree of cementation;
 - iii) An interpretation of hydraulic interconnections between saturated zones (i.e., aquifers) and surface waters; and
 - iv) The attenuation capacity and mechanisms of the natural earth materials (e.g., ion exchange capacity, organic carbon content, mineral content, etc.).

- d. Based on data obtained from groundwater monitoring wells and piezometers installed upgradient, water wells and/or springs downgradient of the potential contaminant source, a representative description of water level or fluid pressure monitoring including:
 - i) Water-level contour and/or potentiometric maps, including seasonal variations;
 - ii) Hydrologic cross sections showing vertical gradients;
 - iii) The flow system, including the vertical and horizontal components of flow; and
 - iv) Any temporal changes in hydraulic gradients, for example, due to tidal or seasonal influences and for karst terrane, stormflow.
- e. A description of man-made influences that may affect the hydrology of the site, identifying:
 - i) Local water-supply and production wells with an approximate schedule of pumping; and
 - ii) Man-made hydraulic structures (pipelines, french drains, ditches, roofs, runways, parking lots, etc.).

2. Soils

The Permittee shall provide an explanation of the soil and rock units above the water table in the vicinity of contaminant release(s). This summary may include, but not be limited to, the following types of information as appropriate:

- i) Surface soil distribution;
- ii) Soil profile, including ASTM classification of soils;
- iii) Transects of soil stratigraphy;
- iv) Hydraulic conductivity (saturated and unsaturated);
- v) Relative permeability;
- vi) Bulk density;
- vii) Porosity;
- viii) Soil sorption capacity;
- ix) Cation exchange capacity (CEC);
- x) Soil organic content;
- xi) Soil pH;
- xii) Particle size distribution;
- xiii) Depth of water table;
- xiv) Moisture content;
- xv) Effect of stratification on unsaturated flow;
- xvi) Infiltration;
- xvii) Evapotranspiration;
- xviii) Storage capacity;
- xix) Vertical flow rate; and
- xx) Mineral content.

3. Surface Water and Sediment

The Permittee shall provide a description of the surface water bodies in the vicinity of the facility. This summary may include, but not be limited to, the following activities and information:

- a. Description of the temporal and permanent surface water bodies including:
 - i) For lakes and estuaries: location, elevation, surface area, inflow, outflow, depth, temperature stratification, and volume;
 - ii) For impoundments: location, elevation, surface area, depth, volume, freeboard, and construction and purpose;
 - iii) For streams, ditches, and channels: location, elevation, flow, velocity, depth, width, seasonal fluctuations, flooding tendencies (i.e., 100 year event), discharge point(s), and general contents.
 - iv) Drainage patterns; and
 - v) Evapotranspiration.
- b. Description of the chemistry of the natural surface water and sediments. This includes determining the pH, total dissolved solids, total suspended solids, biological oxygen demand, alkalinity, conductivity, dissolved oxygen profiles, nutrients, chemical oxygen demand, total organic carbon, specific contaminant concentrations, etc.
- c. Description of sediment characteristics including:
 - i) Deposition area;
 - ii) Thickness profile; and
 - iii) Physical and chemical parameters (e.g., grain size, density, organic carbon content, ion exchange capacity, pH, etc.)

4. Air

The Permittee shall provide information characterizing the climate in the vicinity of the facility. Such information may include, but not be limited to:

- a. A description of the following parameters:
 - i) Annual and monthly rainfall averages;
 - ii) Monthly temperature averages and extremes;
 - iii) Wind speed and direction;
 - iv) Relative humidity/dew point;
 - v) Atmospheric pressure;
 - vi) Evaporation data;
 - vii) Development of inversions; and
 - viii) Climate extremes that have been known to occur in the vicinity of the facility, including frequency of occurrence (i.e., Hurricanes)
- b. A description of topographic and man-made features which affect air flow and emission patterns, including:
 - i) Ridges, hills or mountain areas;

- ii) Canyons or valleys;
- iii) Surface water bodies (e.g., rivers, lakes, bays, etc.); and
- iv) Buildings.

C. Source Characterization

For those sources from which releases of hazardous constituents have been detected, the Permittee shall provide analytical data to completely characterize the wastes and the areas where wastes have been placed, to the degree that is possible without undue safety risks, including: type, quantity; physical form; disposition (containment or nature of deposits); and facility characteristics affecting release (e. g., facility security, and engineering barriers). Data gaps on source characterization shall be identified and provisions made in Section E to obtain the relevant information to fill the data gap. This summary shall include quantification of the following specific characteristics, at each source area:

1. Unit/Disposal Area Characteristics:

- a. Location of unit/disposal area;
- b. Type of unit/disposal area;
- c. Design features;
- d. Operating practices (past and present)
- e. Period of operation;
- f. Age of unit/disposal area;
- g. General physical conditions; and
- h. Method used to close the unit/disposal area.

2. Waste Characteristics:

- a. Type of wastes placed in the unit;
 - i) Hazardous classification (e. g., flammable, reactive, corrosive, oxidizing or reducing agent);
 - ii) Quantity; and
 - iii) Chemical composition.
- b. Physical and chemical characteristics such as:
 - i) Physical form (solid, liquid, gas);
 - ii) Physical description (e.g., powder, oily sludge);
 - iii) Temperature;
 - iv) pH;
 - v) General chemical class (e.g., acid, base, solvent);
 - vi) Molecular weight;
 - vii) Density;
 - viii) Boiling point;
 - ix) Viscosity;
 - x) Solubility in water;
 - xi) Cohesiveness of the waste; and
 - xii) Vapor pressure.
- c. Migration and dispersal characteristics of the waste such as:

- i) Sorption capability;
 - ii) Biodegradability, bioconcentration, and biotransformation;
 - iii) Photodegradation rates;
 - iv) Hydrolysis rates; and
 - v) Chemical transformations.
-

D. Potential Receptors

The Permittee shall provide data describing the human populations and environmental systems that are susceptible to contaminant exposure from the facility. Data gaps pertinent to receptor analysis shall be identified and provisions made in Section E to obtain the relevant information to fill the data gap. The following characteristics shall be identified at a minimum:

1. Current local uses and planned future uses of groundwater:
 - a. Type of use (e.g., drinking water source: municipal or residential, agricultural, domestic/non-potable, and industrial);
 - b. Location of groundwater users, to include withdrawal and discharge wells and springs, within one mile of the impacted area.

The above information should also indicate the aquifer or hydrogeologic unit used and/or impacted for each item.

2. Current local uses and planned future uses of surface waters directly impacted by the facility:
 - a. Domestic and municipal (e.g., potable and lawn/gardening watering);
 - b. Recreational (e.g., swimming, fishing);
 - c. Agricultural;
 - d. Industrial; and
 - e. Environmental (e.g., fish and wildlife propagation).
3. Human use of or access to the facility and adjacent lands, including but not limited to:
 - a. Recreation;
 - b. Hunting;
 - c. Residential;
 - d. Commercial; and
 - e. Relationship between population locations and prevailing wind direction.
4. A general description of the biota in surface water bodies on, adjacent to, or affected by the facility.
5. A general description of the ecology within the area adjacent to the facility.
6. A general demographic profile of the people who use have access to the facility and adjacent land, including, but not limited to: age; sex; and sensitive subgroups.
7. A description of any known or documented endangered or threatened species near the facility.

E. Sampling and Analysis Plan(s) for Characterization of Releases of Hazardous Waste/Hazardous Constituents

The Permittee shall prepare a plan to document all monitoring procedures necessary to characterize the extent, fate and transport of releases (i.e., identify sample locations, sample procedures and sample analysis to be performed during the investigation to characterize the

environmental setting, source, and releases of hazardous constituents, so as to ensure that all information and data are valid and properly documented). The sampling strategy and procedures shall be in accordance with EPA Region 4 Environmental Compliance Branch's Standard Operating Procedure and Quality Assurance Manual (SOP) (most recent version). Any deviations from this reference must be requested by the applicant and approved by EPA. If a Risk Assessment is expected to be performed once release characterization is complete or nearly complete, Data Quality Objectives (DQO) for a Human Health Risk Assessment requires a Data Quality Objective of Level 3 or greater.

The Sampling and Analysis Plan must specifically discuss the following unless the SOP procedures are specifically referenced.

1. Sampling Strategy

- a. Selecting appropriate sampling locations, depths, etc.;
- b. Obtaining all necessary ancillary data;
- c. Determining conditions under which sampling should be conducted;
- d. Determining which media are to be sampled (e.g., groundwater, air, soil, sediment, subsurface gas);
- e. Determining which parameters are to be measured and where;
- f. Selecting the frequency of sampling and length of sampling period;
- g. Selecting the types of samples (e.g., composite vs. grab) and number of samples to be collected.

2. Sampling Procedures

- a. Documenting field sampling operations and procedures, including:
 - i) Documentation of procedures for preparation of reagents or supplies which become an integral part of the sample (e.g., filters, preservatives, and absorbing reagents);
 - ii) Procedures and forms for recording the exact location and specific considerations associated with sample acquisition;
 - iii) Documentation of specific sample preservation method;
 - iv) Calibration of field instruments;
 - v) Submission of appropriate blanks (e.g., field, equipment, trip, etc.);
 - vi) Potential interferences present at the facility;
 - vii) Construction materials and techniques, associated with monitoring wells and piezometers;
 - viii) Field equipment listing and sampling containers;
 - ix) Sampling order; and
 - x) Decontamination procedures.
- b. Selecting appropriate sample containers;
- c. Sampling preservation; and
- d. Chain-of-custody, including:
 - i) Standardized field tracking reporting forms to establish sample custody in the field prior to shipment; and

- ii) Pre-prepared sample labels containing all information necessary for effective sample tracking.
- iii) Chain-of-custody seals for sample containers and shipping coolers.

3. Sample Analysis

Sample analysis shall be conducted in accordance with SW-846: "Test Methods for Evaluating Solid Waste - Physical/Chemical Methods" (most recent version) or an alternate approved method. The sample analysis section of the Sampling and Analysis Plan shall specify the following:

- a. Chain-of-custody procedures, including:
 - i) Identification of a responsible party to act as sampling custodian at the laboratory facility authorized to sign for incoming field samples, obtain documents of shipment, and verify the data entered onto the sample custody records;
 - ii) Provision for a laboratory sample custody log consisting of serially numbered standard lab-tracking report sheets; and
 - iii) Specification of laboratory sample custody procedures for sample handling, storage, and dispersment for analysis.
- b. Sample storage (e.g., maximum holding times for constituents);
- c. Sample preparation methods;
- d. Analytical Procedures, including:
 - i) Scope and application of the procedure;
 - ii) Sample matrix;
 - iii) Potential interferences;
 - iv) Precision and accuracy of the methodology; and
 - v) Method Detection Limits; and
 - vi) Practical Quantitative Limits
- e. Calibration procedures and frequency;
- f. Data reduction, validation and reporting;
- g. Internal quality control checks, laboratory performance and systems audits and frequency, including:
 - i) Method blank(s);
 - ii) Laboratory control sample(s);
 - iii) Calibration check sample(s);
 - iv) Replicate sample(s);
 - v) Matrix-spiked sample(s);
 - vi) "Blind" quality control sample(s);
 - vii) Control charts;
 - viii) Surrogate samples;
 - ix) Zero and span gases; and
 - x) Reagent quality control checks.

- h. External quality control checks by EPA, including:
 - i) Spikes and blanks at sampling events for which EPA or its technical representative provides oversight; and
 - ii) The equivalent of a CLP data package for samples split with EPA or for which EPA specifically requests the package.
- I. Preventive maintenance procedures and schedules;
- j. Corrective action (for laboratory problems); and
- k. Turnaround time.

F. Data Management Plan

The Permittee shall develop and initiate a Data Management Plan to document and track investigation data and results. This plan shall identify and set up data documentation materials and procedures, project file requirements, and project-related progress reporting procedures and documents. The plan shall also provide the format to be used to present the raw data and conclusions of the investigation.

1. Data Record

The data record shall include the following:

- a. Unique sample or field measurement code;
- b. Sampling or field measurement location and sample or measurement type;
- c. Sampling or field measurement raw data;
- d. Laboratory analysis ID number;
- e. Property or component measures; and
- f. Result of analysis (e.g. concentration, data qualifiers).

2. Tabular Displays

The following data shall be presented in tabular displays:

- a. Unsorted (raw) data;
- b. Results for each medium, or for each constituent monitored;
- c. Data reduction for statistical analysis, as appropriate;
- d. Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and
- e. Summary data

3. Graphical Displays

The following data shall be presented in graphical formats (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three dimensional graphs, etc.):

- a. Display sampling location and sampling grid;
- b. Indicate boundaries of sampling area, and area where more data are required;
- c. Display geographical extent of contamination, both horizontally and vertically;